Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Waveguide Sub-Harmonic Mixer

RF:220-325GHz/LO:110-165GHz/IF:DC-35GHz Model: TLHM-220325-0235-03

TLHM-220325-0235-03 is a Waveguide Sub-Harmonic Mixer. The mixer supports the wide waveguide band operation for LO frequency from 110 to 165 GHz and RF frequency from 220 to 325 GHz with an extremely broad IF output from DC to 35 GHz. The mixer offers a conversion loss of 13 dB typical@IF=1GHz and LO input power of 7 dBm typical.

Features:

- RF Frequency range: 220-325GHz
- LO Frequency range: 110-165GHz
- IF Frequency range: DC-35GHz
- Low LO Power Requirement
- Subharmonic mixer

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF Frequency	220		325	GHz
LO Frequency	110		165	GHz
LO-Input power		7		dBm
IF Frequency	DC		35	GHz
Conversion Loss		13		dB

Mechanical Specifications:

Parameter	Value	Units
RF Connector	WR-3.4/UG-387/U	
LO Connector	WR-6.5/UG-387/U	
IF Connector	2.92mm Female	
Size	19.1*19.1*19.1	mm

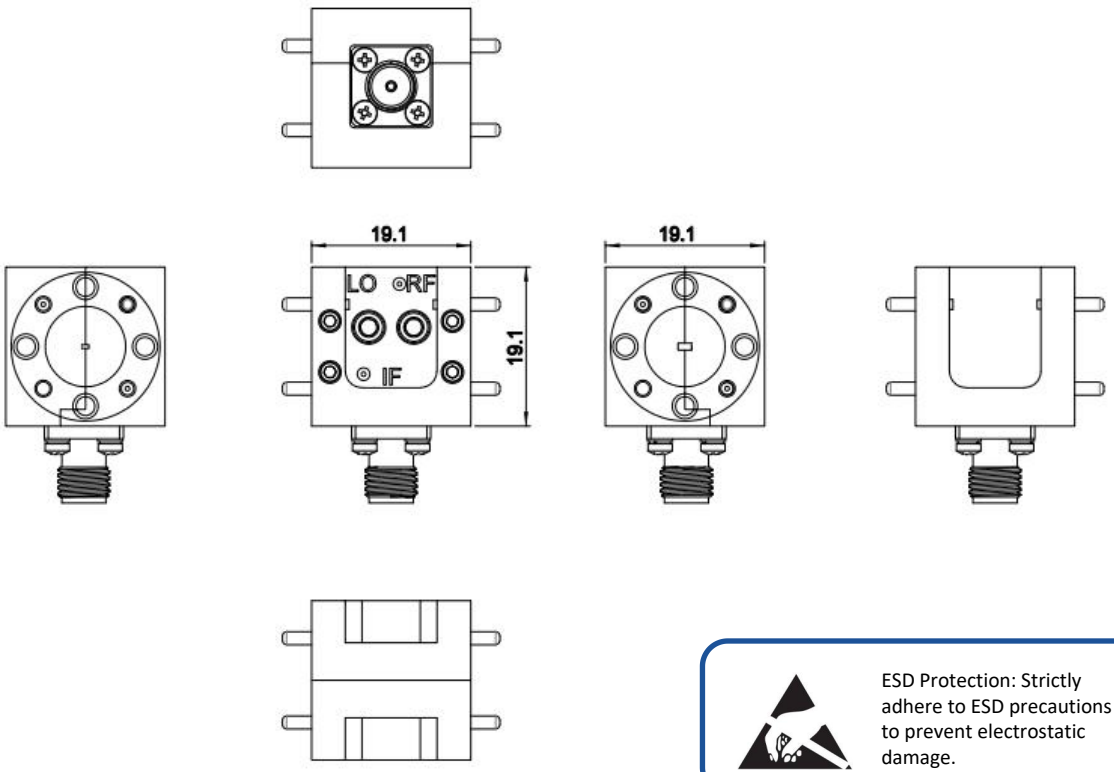
Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	0 dBm
LO Input Power	+10 dBm
IF Input Power	0 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

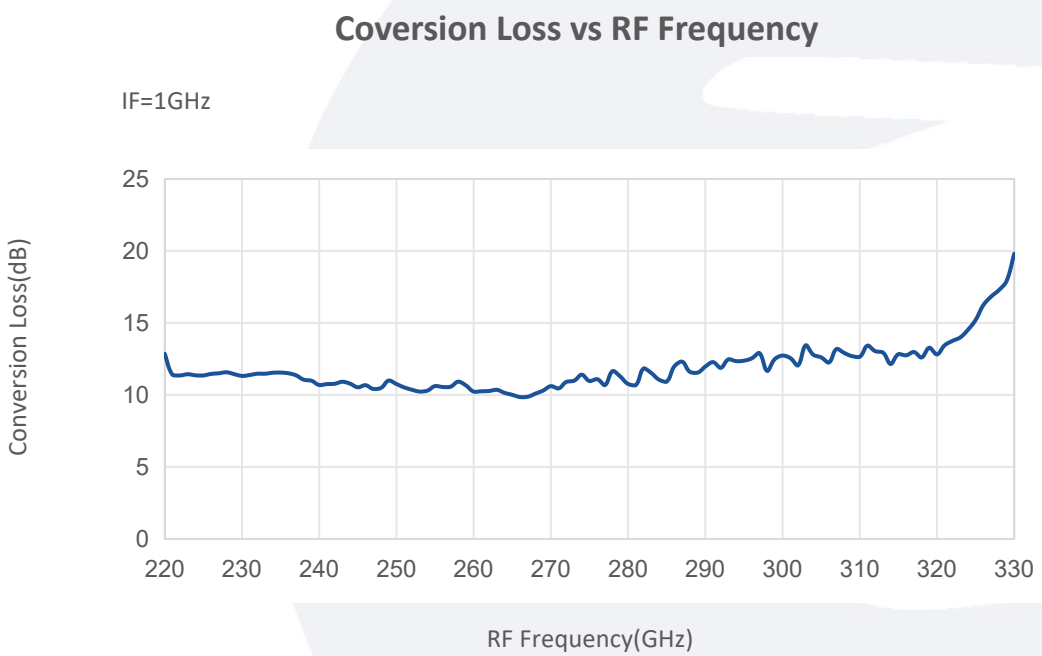
Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-20		+65	℃
Non-operating Temperature	-45		+85	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TLHM-220325-0235-03	Waveguide Sub-Harmonic Mixer RF:220-325GHz,LO:110-165GHz,IF:DC-35GHz	Rev.1.0

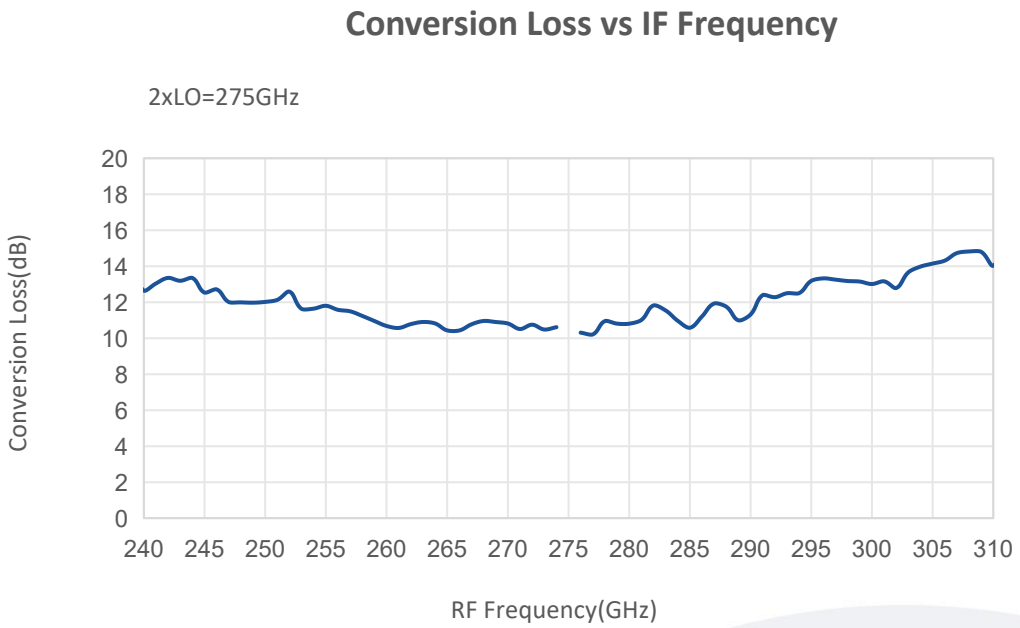
Typical Performance Data:



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Typical Performance Data:



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.